<u>Memo CP-D/168</u>

To: Distribution   Date: 23 November 1987

From: O. Schwerer Ө ᴸᵉʷᵉⁿ

Subject: 1. Units MUB/SR2/MEV
            <u>2. Further comments on TRANS-R005</u>

Clearance: J.J. Schmidt

<u>1.   Units MUB/SR2/MEV</u>

-   In entry R0035 of TRANS R005, the units MUB/MEV/SR2 are used for
    triple-differential cross sections. We propose to change this to
    MUB/SR2/MEV to be consistent with existing codes (e.g. MB/SR2/MEV).

-   We enter this unit into dictionary 25, although its length of 11
    characters is greater than the hitherto accepted maximum length of
    10. Since there are no pointers possible in the units field, this
    should not disturb. Please let us know if this creates problems.

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2.   Comments on TRANS-R005

Entry	Subent	Line(s)	Comment
R0027	2*)		If one REACTION is measured by 2 methods, REACTION must be repeated using pointers 1,2.
R0028*)	2,10		Illegal use of pointers for DATA 1, DATA 2 because they are not linked to any other information in BIB or COMMON section. DATA 2 is explained under COMMENT, however, DATA must always be defined under REACTION. The angle-integrated cross sections must be compiled in separate subentries. Since the units are MB, the correct REACTION codes are 6-C-12(A,N)8-O-15,PAR,SIG,,,EXP and 8-O-16(A,N)10-NE-19,PAR,SIG,,,EXP.
	2-22		The REACTION code ,DA/DE,N,,EXP is not correct in this case for 2 reasons:
			1) Since the units are MB/SR, it is a partial single-differential cross section coded ...,PAR,DA. (Double-differential cross sections have units MB/SR/MEV).
			2) Since there is only 1 outgoing particle in SF3, the 'N' in SF7 is not needed. The correct code is therefore 6-C-12(A,N)8-O-15,PAR,DA,,,EXP or 8-O-16(A,N)10-NE-19,PAR,DA,,,EXP.
R0029	1	7	INSTITUTE = (2JPNKYO)
	2	4/5	sum must be enclosed in extra parentheses
	3,5	3/4,6/7	(( )+( ))
	4,5		data-type DERIV: information from where data were derived (e.g. other subentry) should be given under STATUS.
R0030	2,3	1	SUBENT date missing
	2,3		no DECAY-DATA for REACTIONs 3,4?
R0031	1	5/6	one author's name must not be split on 2 lines
	1 or 2		STATUS keyword missing
	2	1	SUBENT date missing
		3/4	sum must be enclosed in parentheses
		ENDSUBENT	N1=10
R0032	1		STATUS keyword missing
	2-4	1	SUBENT date missing
R0033	2,3	10,25	use THICKNESS rather than MISC as heading for independent variable. Keyword MISC-COL not needed

Entry	Subent	Line(s)	Comment
R0034	1	5	INSTITUTE code incomplete. If no code for this institute exists, either repeat country code (2FR FR) or, if more entries from this institute are to be expected, propose new code for Dict. 3. <u>Please check</u>
	1		STATUS keyword missing
R0035*)	1	8	INSTITUTE: see comment on R0034.001
	2-33	14	Change units to MUB/SR2/MEV (see item 1. of this memo)
	2-15,26, 27		1) Secondary energy E is not defined: is it energy of proton or deuteron? Entry under EN-SEC is needed: EN-SEC (E,P) or (E,D).
			2) Since the 2 angles refer to the proton and deuteron, respectively, the REACTION code should be ,DA/DA/DE,P/D/P,,EXP if E refers to the proton, and ,DA/DA/DE,P/D/D,,EXP if E refers to the deuteron. (The given code, DA/DA/DE,P/P/D,,EXP would refer to 2 outgoing proton angles.)
	16-21		same comment, with T instead of D
	28,29		same comment, with A instead of D
	30,31		same comment, with D and HE3 instead of P and D
	32,33		same comment, with T and HE3 instead of P and D

P.S.   After checking the original reference of entry R0035 we found
that the secondary energy always refers to the lightest outgoing
particle. The correct coding for SF6-9 should therefore be the
following:

,DA/DA/DE,P/D/P,,,EXP for subentries 2-15,26,27
,DA/DA/DE,P/T/P,,,EXP for subentries 16-21
,DA/DA/DE,P/A/P,,,EXP for subentries 28,29
,DA/DA/DE,D/HE3/D,,,EXP for subentries 30,31
,DA/DA/DE,T/HE3/T,,,EXP for subentries 32,33. Dictionary 36
will be updated accordingly.